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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/974,621	11/19/97	NISHI	T 07977/202001

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MM92/0426

EXAMINER

NGUYEN, D

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 04/26/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/974,621

Applicant(s)
Nishi

Examiner
Dung Nguyen

Group Art Unit
2871



☒ Responsive to communication(s) filed on Feb 8, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-8 and 11-18 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-8 and 12-17 is/are rejected.

☒ Claim(s) 11 and 18 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2871

RESPONSE TO AMENDMENT

Applicant's amendment dated May 05, 1999 has been received and entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,805,252 , in view of Yoshihiro, US Patent No. 5,550,658.

Regarding claims 1-7, in figure 14, Shimada et al. disclose a reflection type active matrix liquid crystal display (LCD) device in which:

- a plural of pixel electrodes (38) disposed over an active matrix substrate (30a) in the form of a matrix (according to active matrix LCD), each pixel electrode connects to a thin film transistor (TFT)(40);
- an interlayer insulating film (42) interposed between the active matrix substrate and the plurality of pixel electrodes;
- an oxidized of aluminum light reflective film (38a) formed on an upper surface of pixel electrodes;
- a first orientation film (44) formed on the light reflective film;

Art Unit: 2871

- a color filter (46), a counter electrode (47) and a second orientation film formed on an opposing substrate (30b);
- a liquid crystal material (e.g., guest-host type, figures 17 and 18) injected between the first and second orientation film.

The difference between the Shimada et al. reference and the claimed invention is that the light reflective film formed of at least two layers having the same or different configuration to each other. However, Yoshihiro clearly discloses in figure 1 that a light reflective film can be formed by two layers (12a and 13a) in order to obtain a reflector having higher glossiness or diffusion reflectivity. Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to formed a multilayer of reflecting film on the surface of the pixel electrode of Shimada et al. as mention above and the use of one and/or multilayer having a same or different configuration merely depend(s) on the particular desire of a manufacturer of such device and the feasibility of such process or processes evaluated by the manufacturer.

Regarding claims 8 and 12-17, the modification to Shimada et al. disclose the claimed invention as describe above except for the reflectance percentage of the light reflective film is 80%. However, Yoshihiro does disclose a reflector having higher glossiness or diffusion reflectivity. Therefore, one of ordinary skill in the art would be able to interpret the term “higher diffusion reflectivity” as 80% or more.

Art Unit: 2871

Allowable Subject Matter

3. Claims 11 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

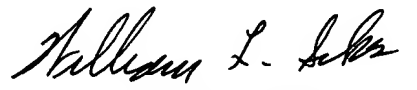
Art Unit: 2871

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7726.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN
04/18/2000


WILLIAM L. SIKES
SUPERVISORY PATENT EXAMINER
GROUP 2800